

Serial No. 10/711,785

Response Dated June 6, 2007

Reply to Communication of 03/06/2007

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### Listing of Claims

1. (Currently Amended): A ~~well-treatment system~~ tool string for achieving a transient underbalance condition in a wellbore, the system tool string comprising:  
a housing forming a sealed surge chamber; ~~[[and]]~~  
a surge charge disposed within the sealed surge chamber, wherein the surge charge is adapted upon activation to penetrate the housing and to not penetrate material exterior of the housing; and  
a chamber carrying a treatment fluid.
2. (Currently Amended): The system tool string of claim 1, wherein ~~[[the]]~~ a pressure within the surge chamber is less than ~~[[the]]~~ a pressure exterior of the housing.
3. (Currently Amended): The system tool string of claim 1, wherein the surge charge has a relatively large-radius explosive cavity.
4. (Currently Amended): The system tool string of claim 1, wherein the surge charge has a substantially infinite-radius explosive cavity.

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5. (Currently Amended): The ~~system~~ tool string of claim 1, wherein the explosive cavity of the surge charge is lined with a low-density material.
6. (Currently Amended): The ~~system~~ tool string of claim 1, wherein the explosive cavity of the surge charge is unlined.
7. (Currently Amended): The ~~system~~ tool string of claim 1, wherein the housing has a thinned wall section positioned adjacent a explosive cavity of the surge charge.
8. (Currently Amended): The ~~system~~ tool string of claim 1, further including ~~[[:]]~~ an explosive perforating charge adapted for penetrating a material exterior of the housing.
9. (Currently Amended): The ~~system~~ toolstring of claim ~~[[9]]~~8, wherein the perforating charge has an explosive cavity having a radius smaller than the radius of ~~[[the]]~~ an explosive cavity of the surge charge.
10. (Currently Amended): The ~~system~~ tool string of claim ~~[[9]]~~8, wherein ~~[[the]]~~ a pressure within the surge chamber is less than the pressure exterior of the housing.
11. (Currently Amended): The ~~system~~ tool string of claim 9, wherein a ~~[[the]]~~ pressure within the surge chamber is less than ~~[[the]]~~ a pressure exterior of the housing.

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12. - 15. (Canceled):
16. (Currently Amended): A tool string for well treatment-system, the system tool string comprising:
- a housing forming a sealed surge chamber wherein a ~~[[the]]~~ pressure within the surge chamber is less than a ~~[[the]]~~ pressure exterior of the housing when the surge chamber is sealed;
  - a surge charge disposed within the sealed surge chamber, wherein the surge charge is adapted upon activation to penetrate the housing and to not penetrate material exterior of the housing;
  - a thin walled section formed in the housing adjacent an explosive cavity of the surge charge; and
  - an explosive perforating charge adapted for penetrating a material exterior of the housing;
- and
- a chamber carrying a treatment fluid.
17. (Currently Amended): The ~~system~~ tool string of claim 16, wherein the perforating charge has an explosive cavity having a radius smaller than a ~~[[the]]~~ radius of the explosive cavity of the surge charge.
18. (Currently Amended): The system tool string of claim 16, wherein the explosive cavity of the surge charge is lined.

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19. (Currently Amended): The ~~system~~ tool string of claim 16, wherein the explosive cavity of the surge charge is unlined.
20. (Currently Amended): The ~~system~~ tool string of claim 17, wherein the explosive cavity of the surge charge is unlined.
21. - 28. (Canceled):
29. (Currently Amended): A method for treating a well, the method comprising the steps of:  
placing a tool string system in a wellbore proximate a formation to be treated; ~~the system~~  
comprising: a housing; having a sealed surge chamber[(:)], a surge charge  
disposed within the sealed surge chamber, ~~wherein the surge charge is adapted to~~  
~~only penetrate the housing, and a perforating charge[(:)], and a chamber carrying~~  
a treatment fluid;  
releasing the treatment fluid into the wellbore;  
detonating the perforating charge to create a tunnel in the formation; and  
detonating the surge charge to penetrate the housing thereby providing fluid  
communication between the wellbore and the surge chamber.
30. (Original): The method of claim 29, wherein the sealed surge chamber has a lower pressure  
than ~~[[the]]~~ a wellbore pressure proximate the housing.

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31. (Currently Amended): The method of claim 29, ~~further including the step of~~  
~~disposing a chemical wherein the treatment fluid is released into~~ into ~~[[in]]~~ the wellbore before  
detonating the perforating charge.
32. (Currently Amended): The method of claim 30, ~~further including the step of~~  
~~disposing a chemical wherein the treatment fluid is released into~~ into ~~[[in]]~~ the wellbore before  
detonating the perforating charge.
33. (Original): The method of claim 29, wherein the surge charge has an explosive cavity with a  
radius relatively larger than the radius of the perforating charge explosive cavity.
34. (Original): The method of claim 30, wherein the surge charge has a substantially infinite-  
radius explosive charge cavity.
35. (Withdrawn): A downhole explosive charge adapted to perforate a surge chamber without  
damaging objects external of the surge chamber to achieve a transient underbalance  
condition in a wellbore, the charge comprising:  
an explosive having a charge cavity.
36. (Withdrawn): The charge of claim 35, wherein the charge cavity has a finite large radius.

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37. (Withdrawn): The charge of claim 35, wherein the charge cavity has a substantially infinite radius.
38. (Withdrawn): The charge of claim 35, wherein the charge cavity has an infinite radius.
39. (Withdrawn): The charge of claim 35, wherein the charge cavity is lined with a low-density liner material.
40. (Withdrawn): The charge of claim 36, wherein the charge cavity is lined with a low-density liner material.
41. (Withdrawn): The charge of claim 37, wherein the charge cavity is lined with a low-density liner material.
42. (Withdrawn): The charge of claim 38, wherein the charge cavity is lined with a low-density liner material.
43. (New): The tool string of claim 1, wherein a pressure in the chamber carrying the treatment fluid is greater than a pressure in an area of the wellbore adjacent and external to the chamber carrying the treatment fluid.

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44. (New): The tool string of claim 16, wherein a pressure in the chamber carrying the treatment fluid is greater than a pressure in an area of the wellbore adjacent and external to the chamber carrying the treatment fluid.
45. (New): The method of claim 29, wherein a pressure in the chamber carrying the treatment fluid is greater than a pressure in an area of the wellbore adjacent and external to the chamber carrying the treatment fluid.